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EXAMINER

WERNER, BRIAN P

ART UNIT

PAPER NUMBER

2621

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Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/356,940

Applicant(s)

GRAJEWSKI ET AL.

Examiner

Brian P. Werner

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 02 June 1999.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-32 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 July 1999 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Response to Amendment***

1. The preliminary amendment received on June 2, 1999 has been entered. Claims 1-32 are pending.

### ***Specification***

2. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: Claims 1 and 16 each recite the generation of a "unique electrical signal" (e.g., step f in claim 1, and steps e and f in claim 16). The specification does not describe this "unique electrical signal".

### ***Claim Objections***

3. Claims 11, 21 and 31 are objected to because of the following informalities: In claim 11, at line 1, "said circuit means" has two antecedents including a "first circuit means" and a "second circuit means". Claim 11 should be amended to clarify which of those two circuit means is being referred to. The "second circuit means" will be assumed. In claim 21, one of the two semicolons at the end of step "d" should be deleted. Regarding claim 31, "said input device" lacks an antecedent basis. Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-7 and 16-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 1 and 16 each recite the generation of a "unique electrical signal" in response to a comparison of newly input and previously stored biometric information (e.g., step f in claim 1, and steps e and f in claim 16). The specification does not describe this "unique electrical signal". Rather, the specification just describes the comparison (i.e., "the device is activated if the presented thumb print template matches the previously stored template" at page 4, line 1). Thus, because the specification does not describe the nature of this "unique electrical signal", much less the actual generation of a "unique electrical signal", a fundamental inconsistency exists between the specification and the claims. The term is not defined and thus the metes and bounds of the term are nebulous. Refer to MPEP paragraph 2173.03, Inconsistency Between Claim and Specification Disclosure or Prior Art. The term "unique electrical signal" will be interpreted, for purposes of examination, as a "uniqueness electrical signal" that indicates the whether the person seeking access, according to the comparison, has the same biometric as the unique biometric characteristic previously stored.

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***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

7. Claims 1-3, 5-12, 14-18, 21 and 29-32 are rejected under 35 U.S.C. 102(e) as being anticipated by Ramachandran (US 6,315,195 B1). Regarding claim 1, Ramachandran discloses: a portable body member (figures 1 and 4, numeral 14; "portable terminal" at column 6, line 3; NOTE: In re Lindberg, 194 F.2d 732, 93 USPQ 23 (CCPA 1952) (Fact that a claimed device is portable or movable is not sufficient by itself to patentably distinguish over an otherwise old device unless there are new or unexpected results); and mounted to the portable body member (NOTE: regarding the means plus function language of the claims, it is noted that the various means pointed to in the Ramachandran reference below correspond in kind to the means disclosed by

applicant, particularly as depicted in figure 2; e.g., the means of Ramachandran's figure 4 are equivalent to the means of applicant's figure 2); input means receiving a physical representation of a unique body parameter of an individual (figure 4, numeral 47; "fingerprint reader" at column 11, line 1); first circuit means (figure 4, numeral 36) generating a biometric template associated with said unique body parameter as presented to the input means ("add data for ... authorized user" at column 12, line 29); second circuit means storing a single biometric template ("a single fingerprint" at column 11, line 4) of an authorized user (the biometric template is stored in "memory 18" at column 10, line 59 and as depicted in figure 1); third circuit means for comparing other biometric templates generated with the input means with said single biometric template (figure 4, numeral 36; "The reader 47 would read the fingerprint and produce suitable signals to compare the input data to the data stored on the card" and if "the input data corresponds to an authorized user, the user is authorized to further operate the terminal" at column 12, lines 23+); fourth circuit means for generating a uniqueness electrical signal in response to the comparison (figure 4, numeral 36; "the input data corresponds to an authorized user, the user is authorized to further operate the terminal" at column 12, lines 23+; thus, a signal is generated internally in response to the comparison that unlocks the card to give the authorized user the ability to further operate the terminal); fifth circuit means ("memory" at column 23, line 67) storing a sequence of alphanumeric characters representing a PIN ("user's PIN" at column 23, line 63; "PIN may be recalled from memory" at column 23, line 66) enabling the user to gain access to a secure site (NOTE: while this is an intended use statement and not a

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positive limitation, this is disclosed in the reference; i.e., "If the user has first identified themselves with ... biometric data to operate the terminal .... the PIN may be recalled from memory and forwarded by the terminal" at column 23, lines 63+; i.e., the pin is "output by the terminal" to enable a user to "gain access" to an account as described at column 23, line 40). Regarding independent claims 8, 16 and 21, the limitations recited therein are met by Ramachandran as described in the claim 1 rejection above.

Regarding step f of claim 21 in particular, the claim calls for circuitry adapted to generate a password in response to the comparison and adapted to store the password. Ramachandran does both. That is, in response to the biometric comparison, the "PIN may be recalled from memory and forwarded by the terminal" at column 23, lines 63+. Thus, the PIN is stored, and then recalled. The act of recalling a password is equivalent to the act of generating the password because the claim does not call for generating a new password. The term "generating" means to bring into being, or give rise to and this is exactly what recalling the PIN from memory does; it brings it into being so that it can be forwarded by the terminal. Regarding claims 2, 15 and 31, manually operated key are disclosed (figure 1, numerals 24 and 26). Regarding claims 3 and 14, a memory for storing plural PINs is disclosed (figure 1, numeral 18; PINs for a "plurality of conventional cards" [column 1, line 11] are stored for subsequent use). Regarding claims 5, 9 and 18, a visual display displaying the PIN is disclosed (figure 1, numeral 22 and figure 83). Regarding claim 10, the display is an LCD ("LCD type display" at column 6, line 53). Regarding claims 6 and 11, an output port is disclosed (figure 4, numeral 52; "connection to a remote location" at column 9, line 5). Regarding claims 7,

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12, 29, 30 and 32, a fingerprint sensor is disclosed (figure 4, numeral 47; "fingerprint reader" at column 11, line 1). Regarding claim 17, Ramachandran discloses storing a PIN required for access at a remote host ("PIN number uniquely associated with the user's account is required to be input to gain access" at column 23, line 40; thus, the remote host requires a PIN from the user to gain access to the account, whereby the provided PIN is compared with the PIN stored by the remote host to authenticate the user) and storing the PIN in the portable device ("PIN number may be stored on the card" and "recalled from memory and forwarded by the terminal" at column 23, lines 63 and 68; thus, as described here and above, the PIN is stored by the terminal, and recalled and sent to the remote host upon the user's presentation of acceptable biometric data).

### ***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 4 and 21-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Ramachandran (US 6,315,195 B1) and Tomko et al. (US 5,712,912 A – cited by applicant).

Regarding claim 4, Ramachandran discloses a user generating his own alphanumeric PIN ("requiring a user to input an access code which is known only to



them" at column 10, line 56), but does not disclosed means for randomly generating a PIN (NOTE, as disclosed, the "means" for randomly generating a PIN is a circuit, as depicted in figure 2 at numeral 32; thus, the "means" is a circuit, and not a person as disclosed by Ramachandran). Tomko discloses a system in the field of biometrics, and same problem solving area of PIN generation, comprising a means for randomly generating a PIN for a user (figure 1a, numeral 26; a "random character generator 26 generates a digital PIN" at column 4, line 6). It would have been obvious at the time the invention was made to one of ordinary skill in the art to provide the portable terminal of Ramachandran with a means for randomly generating the user's PIN "which is known to them" (Ramachandran, column 10, line 56), thereby providing a more secure, and harder to hack PIN than a word or number known to the user. That is, randomly generated pins are far more difficult to hack than PINs typically generated by a person based on names or dates significant to the person because they may also be known to others familiar with the person.

Regarding claim 21, Tomko discloses a device comprising: a biometric interface unit (figure 1, numeral 10); circuitry generating and storing a biometric template (figure 1a, numeral 30) and comparing with a second biometric template (figure 1b, numeral 16 is a subsequently input biometric; the processor compares it with the first template extracted from numeral 208); and password circuitry generating a password ("obtain the PIN" at column 5, line 48) in response to a signal generated from the compare circuitry ("both  $r_n$  and  $a_n$ " at column 5, line 48) and storing the password (PIN) in a storage device (the processor 204 that obtains the PIN must store it for subsequent

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transmission to the device requiring the PIN at numeral 40; i.e., the processor has a memory). Note that the claim does not preclude the possibility of re-generating a previously generated password, or PIN, as described in the claim 21 rejection based on Ramachandran above. In this case, Tomko re-generates the password based on a fingerprint comparison. In addition, the claim does not preclude the biometric template as incorporating the password, as disclosed by Tomko. Regarding claim 22, the PIN is randomly generated (figure 1A, numeral 26). Regarding claim 23, an input device is disclosed (figure 1B, numeral 14). Tomko does not disclose a body member, or a "portable" body member(NOTE: In re Lindberg, 194 F.2d 732, 93 USPQ 23 (CCPA 1952) (Fact that a claimed device is portable or movable is not sufficient by itself to patentably distinguish over an otherwise old device unless there are new or unexpected results). Ramachandran discloses a system for storing and generating a PIN based on biometric authorization as described in the rejection above, comprising a portable body member (figures 1 and 4, numeral 14; "portable terminal" at column 6, line 3). It would have been obvious at the time the invention was made to one of ordinary skill in the art to provide Tomko's system with a body member as taught by Ramachandran in order to enclose and protect the circuitry from the external elements thus ensuring its operability, and to provide Tomko's system with a "portable" body member also as taught by Ramachandran in order for the user to easily carry the device with him, thus ensuring that the PIN is accessible whenever and wherever the user needs it. Regarding claim 24, Tomko does not disclose a display device for viewing the password. Ramachandran discloses such a display device as described in the rejection above (i.e.,

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figure 1, numeral 22 and figure 83), and it would have been obvious to display the PIN in the above Tomko and Ramachandran combination in order for the user to view that it has been properly re-generated and recalled. Regarding claim 25, Tomko discloses an output port (figure 1B, numeral 209). Regarding claim 26, Tomko's circuitry (i.e., figures 1A and 1B) is adapted to allow for a change in the password, the generation of a new password (i.e., the circuitry is adapted to generate the initial password, or PIN, as described above, and this constitutes a "new" password thus meeting the claim requirements; in addition, given that the circuitry is adapted to generate a password in the first place, then the circuitry is adapted to change the password; the claims do not recite positive steps of changing the password, nor do they described the structure of the circuitry that changes or generates new passwords; the claims only call for the circuitry to be "adapted to allow" for such activities, and the Tomko circuitry is adapted to allow for such activities). Regarding claim 28, Tomko's password is at least eight characters long ("series of characters,  $a_n$ , ( $n=1, 2, \dots N$ )" at column 4, line 32).

10. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Ramachandran (US 6,315,195 B1) and Ferraro (US 4,768,021 A). Ramachandran discloses a user storing a fingerprint template in a storage means for subsequent comparison with a newly input fingerprint as described in the claim 1 rejection above. Ramachandran does not disclose the storage means storing the biometric (i.e., fingerprint) template in response to simultaneous presentation of the biometric (fingerprint) to the input means and pressing a key. Ferraro discloses a

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system for allowing access to a secure location by comparison of biometrics (figure 5) and in the same problem solving area of storing a biometric template ("remembering" at column 3, line 22), comprising a storage means ("memory" at column 3, line 22) storing the biometric template ("preselected fingerprint" at column 3, line 23) in response to simultaneous presentation of the biometric to the input means (figure 5, numeral 62) and pressing a key ("The owner of safe 40 places a finger on touch pad 62 and then presses the program memory button 64. The electronic memory at this time will activate and record the owner's fingerprint for future reference" at column 3, lines 27+). It would have been obvious at the time the invention was made to one of ordinary skill in the art to provide a program memory key on the Ramachandran terminal device, in order to program (or store) the user's biometric template upon simultaneous presentation of the biometric and pressing of the key as taught by Ferraro, thereby providing Ramachandran with a convenient, quick and intuitive method of allowing the user to store his biometric template for subsequent use.

11. Claims 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Ramachandran (US 6,315,195 B1) and Shah (US 6,129,273 A). Regarding claim 19, Shah discloses an independent keyboard (figure 1, numeral 19) for entering a PIN ("enters either a personal identification number (PIN) by way of the keyboard 19" at column 7, line 8) to access a secure site ("bank" at column 7, line 15; refer to figure 2). Regarding claim 20, Shah discloses the keyboard operatively connected to a PC which is selectively placed in communication with a computer

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associated with a secure site (as depicted in figure 2). Shah does not disclose the steps and structure of claims 16-18. Ramachandran discloses the steps and structure of claims 16-18 as described in the prior art rejections above. It would have been obvious at the time the invention was made to one of ordinary skill in the art to provide the users of the Shah system with the portable PIN remembering device of Ramachandran, in order for the users to recall and display their PIN for subsequent keyboard entry into the Shah system by simply inputting a biometric characteristic as taught by Ramachandran (as described above), thereby ensuring that the users will always be able to recall their PIN numbers.

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***Conclusion***

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian P. Werner whose telephone number is 703-306-3037. The examiner can normally be reached on M-F, 8:00 - 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo H. Boudreau can be reached on 703-305-4706. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4750.

Brian Werner  
Patent Examiner  
June 5, 2002



**BRIAN WERNER  
PATENT EXAMINER  
ART UNIT 2621**